

## CLAIMS

1. A method for creating data for use in an environment using different encoding schemes, comprising the step of associating the following attribute information with said data:
  - a) an auto conversion flag for allowing or not allowing automatic conversion of said data into another encoding scheme; and
  - b) an encoding scheme identifier for identifying an encoding scheme of said data.
2. A method according to claim 1 in which said attribute information is added to said data.
3. A method according to claim 1 in which said attribute information is added to a directory of said data.
4. A method according to claim 1 wherein said data comprises a file.
5. A method according to claim 4 wherein said attribute information is added by a program at file open.
6. A method according to claim 4 wherein said attribute information is added by a program in a file control operation after opening.
7. A method according to claim 4 wherein said attribute information is added by a program performing an operation on said file.
8. A method according to claim 1 wherein said data comprises a pipe.
9. A method according to claim 1 wherein said data comprises a socket.

10. A method according to claim 1 wherein said data comprises a message queue.
11. A method according to claim 1 wherein initial program attribute information is used as attribute information.
12. A method according to claim 1 wherein a codepage according to current user settings is used as attribute information.
13. A method according to claim 1 wherein said auto conversion flag is laid down as a binary switch which when on means that said data is uniformly encoded text data and when off means that said data is not uniformly encoded text data.
14. A method according to claim 1 wherein said auto conversion flag is derived from a program creating said data.
15. A method according to claim 1 wherein said encoding scheme identifier is derived from a program or from a system environment variable specifying which encoding scheme identifier is assigned to a process executing a program object marked with a certain encoding scheme.
16. A method according to claim 15 wherein said environment variable is set at least session wide.
17. A method according to claim 15 wherein said environment variable is set system wide.
18. A method according to claim 15 wherein said program object is marked with a specific encoding scheme during its compilation process.
19. A method according to claim 1 wherein said attribute information is automatically added upon creating a new file.

20. A method for processing data including data created according to claim 1 whereby reading or writing said data by a program comprises the steps of:

5 determining attribute information for said data to be processed; and

automatically converting an encoding scheme of said data into another encoding scheme by an auto conversion function if said auto conversion flag is on and both said encoding scheme identifier and a process encoding scheme identifier allow conversion.

10

21. A method according to claim 20 wherein said auto conversion function is switched on by an environment variable when it works with programs or data created by programs exploiting auto conversion and creation of said auto conversion flag.

22. A method according to claim 20 comprising the further steps of automatically creating virtual attribute information for data having no attribute information by an automatic tagging function at runtime with the substeps of:

determining the status of the auto conversion flag based on heuristic rules;

deriving a file encoding scheme identifier from system settings or file system settings;

virtually allocating said attribute information to said data; and

25

automatically converting said data into said other encoding scheme by said auto conversion function if said auto conversion flag is on and both said file encoding scheme identifier and said process encoding scheme identifier allow conversion

23. A method according to claim 22 wherein said step of automatically creating virtual attribute information is only carried out if said automatic tagging function is switched on by an environment variable.

5 24. A method according to claim 22 wherein said heuristic rules comprise the following steps:

setting the auto conversion flag on if a function call to open the data in text mode is executed; and

10 setting the auto conversion flag off if a function call to open the data in binary mode is executed.

15 25. A method according to claim 22 wherein said heuristic rules are used for function calls that implicitly open data.

20 26. A method according to 22 wherein said data having no attribute information is provided by a remote file system.

25 27. A computer program product containing parts of software code for executing the method in accordance with claim 1 when said software code is running on a digital computer.

28. A system for processing data with different encoding schemes comprising the following components:

a first function component for adding attribute information for newly created data;

a second function component for automatically allocating virtual attribute information to data having no attribute information; and

an automatic conversion component for converting the encoding scheme of data into another one based on the information provided by the attribute information.

29. A system according to claim 28 further comprising a compiler for setting up a preselected  
encoding scheme and providing each compiled program object with a mark for  
identifying its encoding scheme.

5

For processing